PROGRAM HIGHLIGHT USAID | REGIS-ER

CONSERVATION FARMING AND FARMER-MANAGED NATURAL REGENERATION

RESILIENCE AND ECONOMIC GROWTH IN THE SAHEL - ENHANCED RESILIENCE

Yields increased by 60 percent on average with CF techniques.

Summary

In the Sahel, where desertification and drought have devastated farmland, solutions for strengthening agricultural livelihoods can be challenging. Poor soil, unreliable rains and low crop yields all make rural families vulnerable. **Conservation farming**, a technique taught through REGIS-ER, provides smallholder farmers with **sustainable solutions that enhance their livelihoods**.

Principles of Conservation Farming

Conservation farming and farmer-managed natural regeneration of local tree species **increase yields** and maintain soil structure, **keeping land fertile and productive** well into the future.

Conservation farming employs three methods:

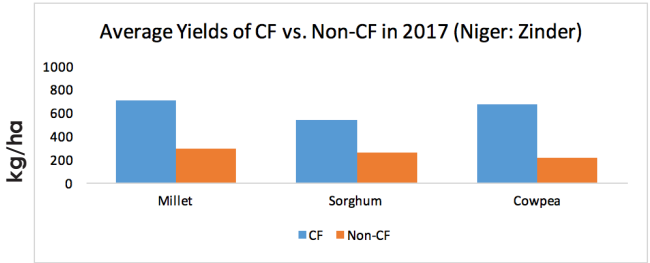
- low tillage (leaving soil undisturbed so it does not dry out),
- covering it with mulch and using compost to retain water and combat erosion, and
- rotating crops to maintain the nutrients in the soil.

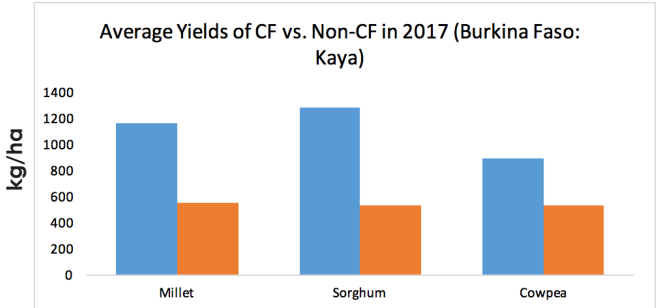
REGIS-ER also promotes the systematic protection of existing local species of trees, which are best adapted to the environment and provide products such as wood, fodder or fruit, as well as enhancing soils. Farmers can also adopt soil and water conservation techniques, such as half-moon water catchment basins, contour walls, to reclaim degraded land. Together, the package of conservation farming techniques enables families to feed themselves and sell surpluses, while enhancing their resilience to climate shocks and stresses.

HIGHLIGHT: IMPROVING YIELDS WHILE PROTECTING SOIL - EVEN IN YEARS OF LOW RAINFALL

REGIS-ER evaluates each growing season's yields to measure the impact of conservation farming on the grains to households that have implemented the techniques. In general, there has been a significant measured increase in yields in the conservation farming fields compared to the non-adopters.

And while overall yields in 2017 were lower, due to poor rainfall, there is a significant improvement in yields through conservation farming, showing that the technique helps producers adapt to climate change and build resilient livelihoods.





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Innovations along the input supply chain

In many regions, producers have begun to assume responsibility for their input supply for conservation farming. These inputs include fertilizers, which are applied to the seed pocket rather than the whole field, as well as seeds for improved crop varieties.

REGIS-ER facilitated the establishment of a "CF input mechanism" so that farmer groups can ensure a sustainable supply of NPK fertilizer. The mechanism is simply a means of linking farmers, suppliers and micro-finance institutions together to ensure timely procurement of inputs, delivered to communities.

In 2017, REGIS-ER supported 277 farmer groups in Burkina Faso, with more than 3,800 producers. These groups procured over 150 tons of NPK fertilizer, valued at 55.6 million CFA francs (around $100,000), of which 25 million CFA francs (over $45,000) was obtained with credit from MFIs. In Niger, 197 groups ordered over 30 tons of NPK fertilizer and paid over 8.3 million CFA francs ($14,000) by drawing on the groups' own savings.

Applying fertilizer directly to the seed pocket, rather than spraying the whole field reduces fertilizer waste and cost.

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The motor driving the mechanism was the network of agriculture community-based solution providers (CBSPs), who inventoried the fertilizer needs of the groups and linked to suppliers. In Burkina Faso, they even facilitated links to the MFI for loan applications.

Conservation farming has strong adoption potential

As the table below shows, conservation farming rapidly gained momentum in REGIS-ER targeted villages because of its immediate and tangible effects. The farming technique was disseminated through **demonstration fields, farmer visits and broadcast on local radio.** At the community level, the technology is affordable through sharing (of rippers), and training and coaching through a lead farmer approach enables quick scale-up. The local government technical services are also involved in measuring yields.

	Number of trained producers		Number of practitioners		Surface (in hectares)	
	Niger	Burkina Faso	Niger	Burkina Faso	Niger	Burkina Faso
2015	1,825	4,594	1,606	4,086	1,152	2,286
2016	9,280	14,758	10,751	16,830	7,693	8,207
2017	10,975	24,752	16,630	36,209	11,557	20,504